Hybridizing the Health Care Plans of Hawaii, Oregon, and Singapore

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Universal coverage requires costcontainment. Working models of health care coverage from Hawaii, Oregon, and Singapore address different aspects of cost-containment. Hybridizing the three produces the following system: A percentage of an individual's salary is mandatorily set aside in an individual medical account. Using these savings, the individual purchases catastrophic medical insurance with a managed care organization. Residual funds are used as a deductible or co-payment and to purchase additional medical services as desired. Enough funds should accumulate during an individual's working life to enable continued coverage after retirement. The basic health care package needs to be limited and is defined by a systematic and rational process based on cost-benefit analysis and democratic consensus regarding priorities and coverage. Medicaid recipients get the same basic package from managed care organizations as that available to the rest of the population; low wage earners receive sliding-scale subsidies from the government. Co-payments and deductibles remain in place except for beneficial preventive services.

The two burning issues facing American health care policy today are universal coverage and cost containment. To address the first without considering the second is idealistic at best and deluded at worst; to address the second without addressing the first is unethical.[1]

Hawaii and Oregon, and the newly industrialized country of Singapore, have recently reformed their health care systems with these precepts in mind. Their novel approaches to the problem of coverage with cost containment have unique strengths potentially complementary, integrating these strengths to create an affordable, just, and politically feasible model of health care in the United States.

Hawaii's QUEST[2]

The burgeoning Medicaid bill in Hawaii ($64 million in emergency funds in addition to annual funding of $492 million in 1992, and even more required for 1994 and 1995) compelled the state to enact a strategy for indigent medical coverage—the Health QUEST Program. Managed care replaced fee-for-service. The various insurers in Hawaii, HMSA, Kaiser, Queen's, Straub, compete to provide a standard benefit package to these patients for a prepaid set rate. Medicaid enrollees can have the provider of their choice from the participating plans. In the past, they saw any doctor they wanted so long as the physician accepted medicaid.

Patients with incomes greater than 133% of the federal poverty level pay a share of the premium as determined by a sliding scale based on income. The near poor and others previously excluded from government health insurance now have access to coverage.

Under regular Medicaid, those enrollees who needed medical care had to be declared disabled and show they had exhausted all their assets before they became eligible for health insurance. QUEST does away with this disability criterion. Part-time work or job failure no longer threaten medical coverage. Under QUEST, this fear is no longer a disincentive for returning to work.[3]

Health QUEST builds on the state's employer mandate. Under the Prepaid Health Care Act, employers have been required to cover employees working more than 20 hours a week with a standard, state-established package of health care benefits. This mandatory coverage has reduced uncompensated care and cost-shifting. Furthermore, it has facilitated voluntary community rating by insurers with the young and healthy paying into the same pool. Consequently premiums are among the lowest in the nation and the general access to primary care has decreased high-cost service utilization.[4]

The implementation of Health QUEST has not been without some administrative confusion. Patients who are used to the previous system have to adjust to seeing only their designated primary care provider. However, the concept is sound and these growing pains should disappear in time.

Oregon's Plan[5]

Oregon recently revamped Medicaid coverage for everybody below the poverty line by limiting the medical services provided or rationing. Oregon went through a painstaking and laborious open process to prioritize services. A list of condition/treatment pairs was generated using ICD-9 (International classification of diseases 9) and CPT-4 (Physicians' current procedural terminology 4) codes. This list was then 'ordered' by computer using various criteria: The first condition was the ability of a treatment to prevent death. If any pairs were tied on this basis, they were then ordered on the average cost of treatment. This computer-ranked list was then reviewed by the Oregon Health Services Commission and further reordering was done by hand based on principles such as ranking preventive measures for a condition above treatments for the same condition. The opinions of Oregonians were polled at public meetings to finalize the

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prioritization list. Comfort care, maternity and child health, family planning services, and communicable diseases were given a higher priority as a result. Cosmetic and infertility services, and treatment for self-limiting conditions, on the other hand, weren't.

The cost of covering each service on the list was estimated by actuaries; the total cost at various cut-off points could be determined. The Oregon legislature then decided on the final cut-off line, in effect stating that services above the line were worthy of public funds, whereas services below it were not. A managed care capitated system with designated primary care providers acting as gate-keepers was installed to further control costs.

For this past year, the cut-off mark was item 568 in a list of 688 condition/treatment pairs. Excluded services included treatments for self-limiting conditions such as the common cold (rank number 636), non-vaginal warts (rank number 653) and viral hepatitis (rank number 586). Conditions with effective home remedies, eg, noninfectious gastroenteritis (rank number 590) and sprains (rank number 623) were also excluded, as were conditions for which treatment is ineffective or futile, eg, surgery for soft-tissue back injury (rank number 575) and treatment for cancer with distant metastasis where treatment offers less than 5% five-year survival chance (rank number 670). Cosmetic treatments, eg, nontoxic goiter (rank number 580), sebaceous cyst (rank number 688) and keloid scars (rank number 676) were also excluded.

Singapore's Health Policy[6]

The city state of Singapore's health policy has as one of its basic tenets the promotion of individual responsibility for health by avoiding over-reliance on medical insurance or state welfare. The incentive for staying healthy is financial. By mandate, 3% of an individual's salary and a matching contribution from the employer go into a medical savings account in the individual's name (Medisave account). This money is deposited with the state and earns interest. The individual makes withdrawals as needed for medical expenses. In theory, enough money accumulates in an individual's medical account during the course of a working life to pay for medical bills or premiums post-retirement and during the final years of life.

The government encourages individuals to purchase private or government catastrophic health insurance using funds from the medisave accounts.

To ensure that middle and low income Singaporeans can afford their co-payments, the government subsidizes the cost of a basic package at certain hospitals. Within these hospitals, wards are divided into three classes: A class beds are not subsidized and provide creature comforts such as air-conditioning and private rooms. B and C class beds are subsidized and offer fewer creature comforts (much like the classes in a train or plane, same destination but varying frills). If a patient does not have the medisave money to obtain basic services in a C class ward, fees may be waived or paid for by a government safety net fund from general taxation.

To moderate the excesses of the fee-for-service system, hospitals have revenue caps, and limits are placed on the fees private practitioners can collect from a patient's medisave account—though not from his or her personal savings.

Two Themes in Cost Containment

The seemingly varied considerations in cost containment cluster around two main themes: Financial incentives, and the absence of a natural limit on health care demand.

Misdirected or absent financial incentives are a common thread running through issues like efficiency, supplier-induced demand, and individual responsibility. And medical demand, like greed, is potentially limitless. Technology and research lead to new and expensive treatments to prolong life, increase medical demand, and patient expectations. There is no obvious end point to either research or patient demands.

Hawaii's QUEST program properly vests the financial incentives in the provider, Singapore's efforts are remarkable for its emphasis on financial incentives to the consumer, and Oregon's plan recognizes the need for clearly spelled-out limits on medical services. All three approaches are worthy of inclusion in a health care policy.

Financial Incentives

The demise of communism is enough reminder of the role of financial incentive or the lack thereof in human endeavor. Health care is no different—notwithstanding professionalism and ethics.

Hawaii's efficiency-inducing and waste-reducing incentive is directed at providers through capitated reimbursement for managed care organizations. Capitated payment is an excellent incentive for providers to reduce waste, and to increase efficiency. It motivates providers to reduce demand by emphasizing primary care, disease prevention, and realistic expectations from patients (unlike fee-for-service where the incentive to providers is to increase demand). Furthermore, by pooling Medicaid patients, the state creates a large block of patients for whom the various managed care organizations compete.

Singapore, on the other hand, inspires the individual and the provider toward thrift. By using a system of individual medical accounts and high deductible catastrophic health insurance, the myth of the third party payer is shattered as one's own cold cash is on the line. The individual can go with a basic government-subsidized health care package and government health insurance, see a doctor only when necessary, pay the deductibles and save what is left of his or her medisave account. Or one can fork out for plusher hospital rooms, interactive television, and medical services excluded from the basic health care package but available as insurance options or direct out-of-pocket purchases.

Limitless Demand

The absence of a natural limit on health care demand in the face of finite health care dollars compels a government, managed care organization or insurance company to define basic health care coverage. Failure to clearly limit the contents of an offered health care package allows treatments in the gray zone of minimal benefit or even clearly beneficial but exorbitant and unaffordable treatments to push up the price of health care. This situation can escalate as new technologies and treatments become available.[7]

Recognizing that it had to choose between unlimited services for a few versus limited coverage for many, Oregon used social values and cost-effectiveness criteria to spell out clearly what was and wasn't covered. Such definition not only facilitates cost-containment but is explicit rationing rather than the haphazard, implicit rationing that characterizes poorly defined health care packages. Implicit or hidden rationing can take a variety of forms including queuing, subtle social factors, and

administrative barriers to deter the delivery of services.[8] By facilitating cost containment, predetermined and explicit rationing minimizes the need for administrative pressures and hassles on doctors. Furthermore, the rationing decisions can be made by the people who are actually paying the costs and getting the benefits.[9]

Oregon appears to have succeeded in defining its package without having to exclude beneficial but expensive treatments, eg, heart-lung transplant for primary pulmonary hypertension and bone marrow transplant for multiple myeloma and chronic leukemias are funded. Whether such beneficial but expensive treatments will continue as technology and new treatments burgeon is uncertain.[7,10-11]

Defining a Basic Health Care Package

A guiding principle for determining allocation in limited resource situations is the Utilitarian Ethic, "The Greatest Good for the Greatest Number."[12-13] Cost-benefit analysis is potentially a sophisticated and rational tool for this ethic to wield.

Cost-benefit analysis quantitates what one often suspects, that the money being spent on a particular service might do more good spent elsewhere. One way of expressing cost-effectiveness is by using the QUALYs (quality-adjusted life years) approach pioneered by the British. QUALYs are calculated by an equation combining the number of additional years of life (obtained from a given treatment) with the quality of life in each of these years.[14] Outcomes from across the spectrum of therapy can be quantified in this way.[16] Procedures can then be ranked formally by cost per unit of benefit gained. Unfortunately, cost-benefit analysis is fraught with technical pitfalls[15-17] and has not reached the maturity necessary to allow its unqualified use in ranking medical services. Oregon tried using cost-benefit analysis in its initial attempts to rank services but generated an inappropriate list.[18-19] Furthermore, the federal government said that the quality of life weightages (as estimated by telephone poll of Oregonians) might be discriminatory against Americans with disabilities.[20] It would be a shame, however, to completely discard cost-benefit analysis. With refinement, such an approach should be far preferable to non-formalized techniques of comparing treatments,[15] especially when seriously contemplating the exclusion of services.

Some have suggested the establishment of centers for technology assessment and outcomes research.[21-22] Such centers could guide, develop, and disseminate systematic knowledge about cost-effectiveness. With the data base on outcomes generated by such a center, the contents of a basic health care package can be rationally determined. Patient input can further improve the final product.[11,23-24] To protect minorities and the disabled, antidiscriminatory laws should be enforced but without sledgehammering cost-benefit analysis altogether.

A Healthier Hybrid

Synthesizing the complementary features of the health plans of Hawaii, Oregon, and Singapore results in the following plan:

1. Individual medical savings accounts are created by mandatory employer and individual contributions.
2. Using these funds, the individual buys catastrophic insurance with the managed care organization of choice. Residual funds are used for inpatient deductibles and outpatient co-payments, and to purchase additional medical services as desired. If the total monthly contributions undercut the insurance premium, then a government subsidy makes up the difference.

Generic Smith works part-time for a fastfood restaurant. Five percent (hypothetically) of his salary and matching contribution from his employer that goes into his individual medical account is insufficient for a high deductible medical insurance premium. A government subsidy makes up the difference and Generic is covered.

Generic Smith undergoes vocational training and starts work for a car manufacturer at an annual salary of $24,000. Suppose 10% (shared equally by employer and employee) goes into his medical account. That's $2,400. He pays out $1,800 for his catastrophic insurance premiums and $50 as payments for two visits to the doctor. At the end of the year, he has $550 accumulated in his account. The bank awards his medical savings interest at the market rate. He changes his managed care organization once when shifting house. He attends his free health maintenance checks where both hypertension and hypercholesterolemia are noted and treated.

3. With careful budgeting, enough funds should accumulate during an individual's working life to enable continued coverage after retirement. Any funds in excess of a certain limit can be withdrawn for nonmedical purposes. Funds remaining at death can be used in funeral expenses and inheritance.
4. The basic health care package is defined with high resolution, service by service, using a systematic and rational process involving cost-benefit analysis and democratic consensus regarding priorities and coverage.

Generic Smith retires at age 60 with $50,000 in his medical account. His account depletes by $2,000 annually in premium payments. At age 62, Generic is diagnosed with multiple myeloma. He receives out-patient chemotherapy and pays the $3,000 deductible when admitted with pneumonia. His prognosis is poor and bone marrow transplant offers him the best chance of prolonged survival. This option is not included in the basic health care package, but Generic opts for it anyway. He pays the $100,000 bill with the remainder of his medical account funds and his personal savings. As his medical account was depleted after the transplant, the premiums and hospice deductible of his last years are paid for by the government.

5. To minimize reckless depletion of individual medical accounts, they can be used only to cover up to a part, eg, 80% of the charges for non-basic medical services.
6. Beneficial preventive services are exempt from co-payments.
7. The poor are assured the same basic package from managed care organizations, paid for with public funds.

Regular Joe is an unemployed alcoholic. He has the same catastrophic insurance policy as Generic Smith, paid for by the government. He too has access to preventive services and a designated primary care doctor. Regular Joe is diagnosed with multiple myeloma when he presents with a pathological fracture. His prognosis is poor, and he cannot pay for a bone marrow transplant, but he receives chemotherapy as standard treatment.

8. Additional refinements would include centers for technology assessment, outcomes research, and practice guidelines.
9. Changes in the malpractice laws and widespread use of living wills and durable powers of attorney also could prove effective in further controling costs.

The Ethics of the Proposal

The ethical imperative of distributive justice (fair distribution of burdens and benefits) drives universal coverage. In our proposed system, everyone has access to the same adequate basic health care package, the contents of which are worked out logically and democratically. Mandatory catastrophic coverage and community rating distributes risk, while the high deductible apportions burden to the individual according to usage. Also, those who want more will have to pay for it out of pocket; they increase their health benefit by increasing their personal financial burden. Such a system tries to balance equality, freedom, and responsibility: The equality is in distributing risk and providing access to all, the freedom and responsibility in allowing those who want more to personally pay the difference. It is a two-tiered system which can favor the rich in terms of choice. However, if the basic health care package is carefully defined, the actual impact of any increased choice on disease outcomes should not be significant. Futile or ineffective treatment at additional cost will hardly make a difference in patient well-being.

Employer mandates can result in a *regressive* mode of financing healtlh care. In regressive financing, payments are an increasing percentage of income as income decreases.[25]

> Jane Ordinary gets a $2,000 monthly wages and benefits package from her employer. As health insurance purchased by the employer is tax-deductible, the package includes a low-deductible health plan for $300 per month, or 15% of Jane's salary. Rob Normal works for the same company for a $3,000 monthly wages and benefits package; the same health coverage costs only 10% of his salary.

In the system suggested, by taking medical account contributions as a percentage of income (and providing sliding-scale-subsidies as needed), premium payments are proportional to income and therefore do not unfairly penalize the lower income classes. Proportional financing is ethically more desirable.

One concern is that financial incentives for doctors to limit services will result in inappropriate withholding of testing and treatment. However, this should be less frequent with explicit rationing compared to the implicit rationing now so widely practiced. Committees can advise if financial incentives to doctors to limit referrals are exceeding a dangerous level. Managed care quality assurance bodies can be supplemented by independent or state watchdog bodies, and appropriate exercise of malpractice laws and practice guidelines will serve as additional safeguards.

The Politics of the Proposal

Sixty-seven percent of Americans say their problem is cost, not coverage.[26] By defining a rational health care package in an open process, a balance can be struck between coverage and cost to suit the average American. Individual medical savings accounts can act as the political motivator for rationing health care by making even more apparent to the consumer (voter) the economic realities of health care cost. The proposed system places everyone on the same side, the side of cost-containment. It can abolish the sometimes adversarial relationship between insurers, consumers and providers.

The individual mandate (as opposed to single-payer systems) retains market place competition, an incentive to quality. It can replace Medicare in providing health care coverage during retirement, all the while maintaining individual choice and continuity of care. It reduces the risk of uncompensated deductibles with catastrophic insurance coverage. By exempting indicated preventive services from co-payments, patients will not be deterred from seeking such services. By using private health care plans and financial institutions, public bureaucracy and inefficiency can be minimized.

Any objection to an individual mandate should be tempered by the realization that individuals are eventually paying for health care anyway—at the rate of $9,500 a year per household.[26] The Hawaii experience has shown that mandatory coverage can reduce health care costs for all.[4]

High-resolution definition of basic packages in a service-by-service-manner will necessarily be a laborious process depending on majority rather than unanimous decisions. The inclusion of new treatments in the basic package could be delayed as the same democratic assessment must be applied to them as for services already included in the package. If these new services are to be additions rather than replacements, there should be consensus as to their cost-effectiveness.

Conclusion

For universal coverage to become a practical reality, we need the right mix of financial incentives to both patient and provider, and a well-defined basic health care package. The three working models of health care in Hawaii, Oregon, and Singapore provide many of these ingredients. Bringing together their strengths can optimize cost-containment and facilitate universal coverage with hybrid vigor.

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